

APPENDIX A

ADEM UST CLOSURE SITE ASSESSMENT REPORT

ADEM**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

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JAMES W. WARR

DIRECTOR

DON SIEGELMAN

GOVERNOR

March 7, 2001

Mr. Nolan Lee Jaye
U. S. Army Garrison
Building 213, 15th Street
Ft. McClellan, Alabama 36205-5000

Facsimiles: (334)

Administration: 271-7950

General Counsel: 394-4332

Air: 279-3044

Land: 279-3050

Water: 279-3051

Groundwater: 270-5631

Field Operations: 272-6131

Laboratory: 277-6718

Mining: 394-4326

Education/Outreach: 394-4383

Dear Mr. Jaye:

RE: **NO FURTHER ACTION**

Building 2278, Boiler House #2

Ft. McClellan, Calhoun County, Alabama

Facility I.D. NO: 11953-015-015821

The Department has reviewed the Closure Site Assessment Report, dated September 13, 2000 for the above-referenced site. As a result of this review, it has been determined that no further investigative or corrective actions as required under ADEM Admin. Code R. 335-6-15.26-.29 will be required for this site at this time.

Please use a complete reference line in all future correspondence, including Facility Identification Number, name, address, and Incident Number (UST- -), where applicable. Sites that are not registered will not have an Identification Number and should be labeled (NOT REGISTERED). Because our filing system is dependent on the use of the Facility Identification Number, we may have to return correspondence and reports that do not provide this information.

If there are any questions, please contact me at 334/271-7792.

Sincerely,

John W. Pierce, Hydrogeologist
UST Corrective Action Section
Groundwater Branch
Water Division

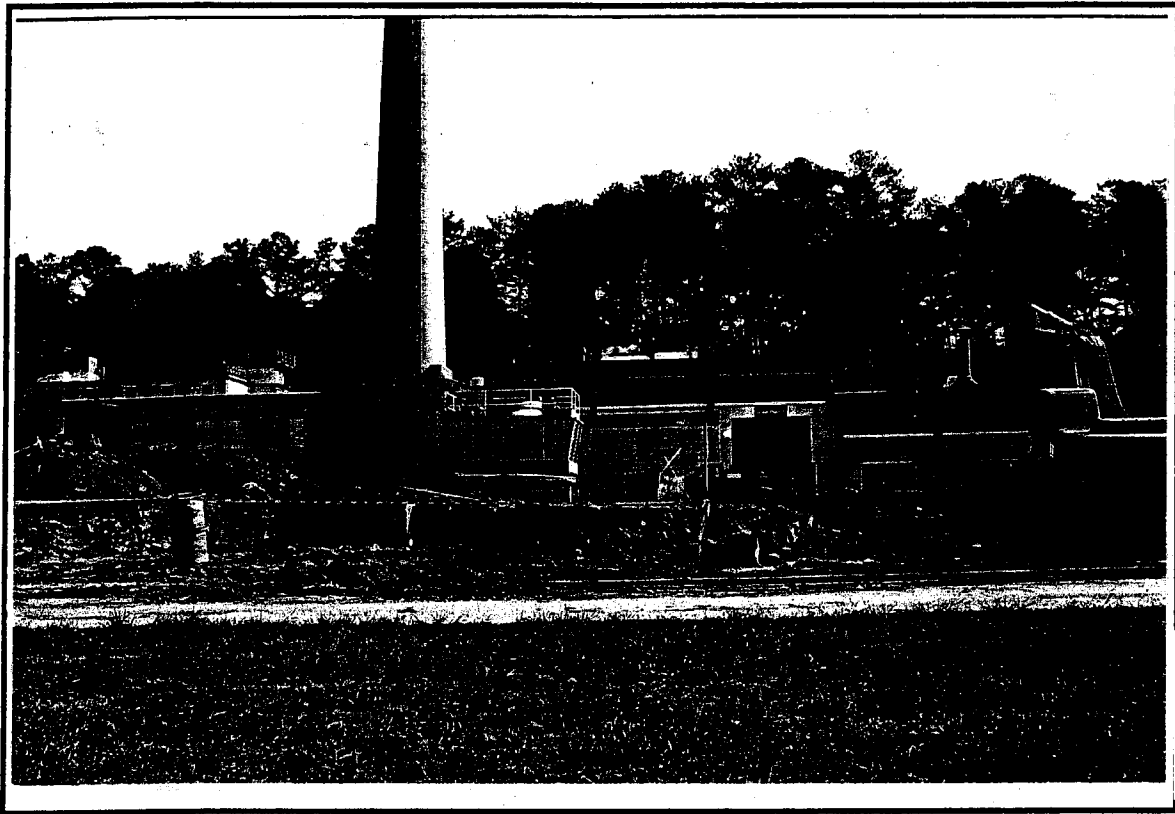
JWP/nm





628 Valley Street
Birmingham, Alabama 35226

Telephone (205) 979-4320



UST CLOSURE SITE ASSESSMENT

SUBJECT SITE:
U S ARMY GARRISON--BUILDING 2278
BOILER HOUSE NO#2
FT. McCLELLAN, ALABAMA 36205

DATED:
SEPTEMBER 13, 2000

ADEM UST CLOSURE SITE ASSESSMENT REPORT

(Use a Separate form for a group of tanks in each tank pit)

FACILITY I.D. NO.: 11953-015-015821 DATE OF THIS REPORT: SEPT 13, 2000

INCIDENT NO. UST -N/A- UST OWNER: U.S. ARMY GARRISON
(If applicable)

FACILITY COUNTY: CALHOUN ADDRESS: BLDG 215 15TH ST
FT MCCLUWAN, AL

FACILITY NAME: U S ARMY CONTACT NAME: 36205-5000
LOCATION: BUILDING 2278 CONTACT PHONE #: MR. NOLAN LEE JAYE
(256) 848-3120

ADDRESS: BOILER HOUSE #2
FT. MCCLUWAN, AL

NAME OF CONTRACTOR USED TO CLOSE (REMOVE) TANK: ALLEN EXCAVATING CO
NAME OF CONSULTANT CONDUCTING ASSESSMENT: KARST ENVIRONMENTAL
NAME OF LABORATORY USED: KAAST

PRIOR TO BEGINNING CLOSURE, THE CONTRACTOR SHOULD BECOME FAMILIAR WITH ALL CLOSURE PROCEDURES IN AMERICAN PETROLEUM INSTITUTE (API) BULLETIN 1604, "REMOVAL AND DISPOSAL OF USED UNDERGROUND PETROLEUM STORAGE TANKS" AND API BULLETIN 2015 "CLEANING PETROLEUM STORAGE TANKS". THESE API BULLETINS ARE AVAILABLE FROM THE AMERICAN PETROLEUM INSTITUTE.

NUMBER OF TANKS CLOSED: TWO (2) DOUBLE-WALL FIBERGLASS
NUMBER OF TANKS REMAINING AT SITE: NONE KNOWN
CLOSURE DATE: AUGUST 29-30, 2000

UNIQUE TANK #:
TANK SIZE:
TANK CAPACITY:
TANK AGE:
DATE TANK LAST USED:
SUBSTANCE STORED:
TYPE OF PRODUCT PIPING:
(Pressurized/Suction)
FARM TANK: N/A
HEATING OIL TANK:

12' x 30'	12' x 30'			
25,000	25,000			
16 YRS	16 YRS			
8/00	8/00			
#6 DIESEL	#6 DIESEL			
S	S			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(BOILER TANKS)

ADEM UST CLOSURE SITE ASSESSMENT FORM

1. COMPLETE THE FOLLOWING SECTION FOR ALL CLOSURES:

a. Provide the results of a 500 ft. survey for domestic water supply wells in the following table and place their locations on the attached site map: NONE OBSERVED - NONE REPORTED

Name of Owner of Domestic Water Supply Well	Distance from UST Site	Depth of Well	Status: Active or Inactive?
N/A			

b. Provide the results of a 1,000 ft. survey for public water supply wells in the following table and place their locations on the attached site map: NONE USED

Name of Owner of Public Water Supply Well	Distance from UST Site	Depth of Well	Status: Active or Inactive?
N/A			

c. Is the UST site located in a delineated wellhead protection or source water area?

SOURCE : CITY OF ANNISTON
(COWWATER SPRINGS)

YES
☐

NO
☒

d. Are there any public water supply surface water intakes within 500 ft. of the UST site?

YES
☐

NO
☒

If yes, locate the intake on the attached site map.

N/A

NOTE: If an active domestic water supply well or an active public water supply well is located within 500 ft. or 1,000 ft. respectively of the UST site, or if the answer to 1c. or 1d. is Yes, the Department may require groundwater sampling to occur at the UST site. If the groundwater sampling is not performed by the owner/operator during the closure site assessment, the Department may require that groundwater sampling occur as part of a Preliminary Investigation.

Groundwater sampling remains a requirement of the closure site assessment when shallow groundwater is present or when performing an in-place closure site assessment.

e. Indicate the current on-site land use and the most likely future land use:

Current On-Site Land Use		Most Likely Future On-Site Land Use	
Residential	<input type="checkbox"/>	Residential	<input type="checkbox"/>
Commercial	<input type="checkbox"/>	Commercial	<input type="checkbox"/>
Other	<input checked="" type="checkbox"/>	Other	<input checked="" type="checkbox"/>
Describe: MILITARY -- BOLLER HOUSE OPERATION		Describe: SAME AS CURRENT USE - CURRENTLY BEING DISMANTLED	

ADEM UST CLOSURE SITE ASSESSMENT FORM

f. Describe the current off-site land use within 500 ft of the UST site. State whether the area, in general, is residential, commercial, mixed residential/commercial or other: GENERALLY: MILITARY RESERVATION
(SEE PAGE NO# 16)

North:	WOODED HILLSIDE; OTHER MILITARY BUILDINGS
Northeast:	
Northwest:	
South:	6TH AVENUE; BLDG 2203 (RESPONSE CTR); PARKING; GOLF COURSE
Southeast:	
Southwest:	
West:	BARRACKS
East:	VACATED CHEMICAL CORPS MUSEUM; PARKING LOT; GOLF COURSE

COMPLETE THE FOLLOWING SECTIONS AS APPROPRIATE BASED ON THE TYPE OF CLOSURE CONDUCTED:

2. TANK CLOSURE BY REMOVAL:

a. Attach FIG NO# 1 a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site. → PAGE NO# 16

b. Attach FIG NO# 2 plan and FIG NO# 3 sectional views of the excavation and include the following:

1. All appropriate excavation dimensions. PAGE NO# 16
2. All soil sample locations and depths using an appropriate method of identification. FIG NO# 2
3. Location of areas of visible contamination. NONE NOTED
4. Former location of tank(s), including depth, with tank Identification Number.

c. Is the groundwater more than 5 feet below the bottom of the excavation? YES ☒ NO ☐
If no, provide the depth from the ground surface to the groundwater table. Feet: N/A

Indicate method used to determine water table depth:

- | | YES | NO |
|---|-------------------------------------|-------------------------------------|
| 1. Excavation extended 5 feet below base of pit: NO GROUNDWATER TO | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Boring or monitoring well: 18 FT. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Topographic features (Method must be approved by ADEM prior to use): | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

d. Was there a notable odor found in the excavation? YES ☐ NO ☒

If yes,

- (1) The odor strength was (mild) (strong) (other) describe: PID READINGS (HNU):
NON-DETECTABLE
- (2) The odor indicates what type of product: (gasoline) (diesel) ALL LESS THAN 1.0 PPM
(waste oil) (kerosene) (other) describe: NO PETROLEUM ODOR IMPARTED

e. Was there water in the excavation? YES ☒ NO ☐

If yes, how was it handled?

- | | YES | NO |
|--|-------------------------------------|--------------------------|
| 1 One time discharge to sanitary sewer with local approval? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 Hauled to facility capable of treating constituents of petroleum products in water? BAMA WASTE OIL SERVICES (Piedmont) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3 Hauled to local POTW with local approval? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 Treated on-site with NPDES approved discharge? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 Other? Explain: | | |

ADEM UST CLOSURE SITE ASSESSMENT FORM

f. Was free product found in the excavation?

YES

☐

NO

☒

If yes,

1. How was free product handled? Describe:

N/A

2. What was the measured thickness of free product?

N/A

g. Were visible holes noted in the tank(s)?

YES

☐

NO

☒

If yes,

Indicate which tank(s) by the Unique Tank Number:

N/A

Also, describe the location(s) and provide general description as to the size and number of holes for above noted tanks, (Example: 3 square feet of pinholes or 3 inch diameter hole):

DOUBLE-WALL FIBERGLASS TANKS (1984); UPGRADED IN 1991 TO INCLUDE OUTFILL & LEAK DETECTION REQUIREMENTS

h. Describe the soil type and thickness of all soil layers encountered in the excavation:

3 FT VARIOUS FILLS (CLAY & GRANULAR); YELLOW, TAN, BROWN FINE GRAVELLY CLAY WITH TALC-LIKE CLAY TEXTURE, SILTY INTERVALS WITH DARK ORGANIC FLECKS AND CONCRETIONS (TO 18 FT)

i. Was the excavation backfilled?

YES

☒

NO

☐

If yes, provide the date of backfilling:

AUGUST 30-31, 2000

DO NOT BACKFILL WITH MATERIAL THAT HAS OR POTENTIALLY HAS A TPH OF GREATER THAN 100 PPM!

3. TANK CLOSURE WITHOUT REMOVAL(CLOSED IN-PLACE):

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.

b. Attach plan and sectional views of the site and include the following:

1. Location of the tank(s) including depth,
2. Location of tank(s) with respect to other tanks, if applicable,
3. Soil boring locations and depths at which soil samples were taken,
4. Boring logs.

c. Attach groundwater sampling data, if required based on depth to groundwater. Refer to Closure Site Assessment Guidance for further details regarding requirements for groundwater sampling.

N/A

CLOSED

By

REMOVAL



ADEM UST CLOSURE SITE ASSESSMENT FORM

d. Is the groundwater more than 5 feet below the bottom of the tank?

YES
☐

NO
☐

Provide the depth from the ground surface to the groundwater table.

Feet: _____

Refer to Closure Site Assessment Guidance (page 11) for further details regarding requirements for determining groundwater elevation.

e. Was there a notable odor found in the bore holes?

YES
☐

NO
☐

If yes,

(1) The odor strength was (mild) (strong) (other) describe: _____

(2) The odor indicates what type of product: (gasoline) (diesel) (waste oil) (kerosene) (other) describe: _____

f. Was free product found in the bore holes?

YES
☐

NO
☐

If yes,

1. How was free product handled? Describe: _____

2. What was the measured thickness of free product? _____

g. Describe the soil type and thickness of all soil layers encountered in the bore holes and provide boring logs:

h. Specify the inert solid material used to fill the tank(s):

i. Provide the date the tank(s) were filled: _____

j. Were the bore holes properly sealed with bentonite/soil?
If yes, provide the date: _____

YES
☐

NO
☐

4. PRODUCT PIPING CLOSURE BY REMOVAL:

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site. FIG NO# 1 PAGE NO# 16

b. If the piping was longer than 10 feet, attach plan and sectional views of the piping trench and include the following: FIG NO# 2 PAGE NO# 9

1. All appropriate excavation dimensions and length of piping, LENGTH = 40 FT
2. All soil sample locations and depths using an appropriate method of identification. FIG NO# 2
3. Location of areas of visible contamination. NONE NOTED

ADEM UST CLOSURE SITE ASSESSMENT FORM

c. Was the piping purged of product prior to closure?
If yes, was the product properly disposed of?

YES ☒ NO ☐
YES ☒ NO ☐

d. Is the groundwater more than 5 feet below the bottom of the piping trench?

YES ☒ NO ☐

If no, provide the depth from the ground surface to the groundwater table.

Feet: N/A

Indicate method used to determine water table depth:

1. Excavation extended 5 feet below base of trench: NO GROUNDWATER
2. Boring or monitoring well: TO 18 FEET
3. Topographic features (Method must be approved by ADEM prior to use):

YES ☒ NO ☐
YES ☐ NO ☒
YES ☐ NO ☒

e. Was there a notable odor found in the piping trench?

YES ☐ NO ☒

If yes,

- (1) The odor strength was (mild) (strong) (other)
describe: NON - DETECTABLE

PID READINGS (HNU) ALL LESS THAN 1.0 PPM

- (2) The odor indicates what type of product:
(gasoline) (diesel) (waste oil) (kerosene) (other)
describe:

NO PETROLEUM ODOOR IMPARTED

f. Was there water in the piping trench?

YES ☐ NO ☒

If yes, how was it handled?

1. One time discharge to sanitary sewer with local approval?
2. Hauled to facility capable of treating constituents of petroleum products in water?
3. Hauled to local POTW with local approval?
4. Treated on-site with NPDES approved discharge?
5. Other? Explain:

YES ☐ NO ☐
YES ☐ NO ☐
YES ☐ NO ☐
YES ☐ NO ☐
YES ☐ NO ☐

N/A

g. Was free product found in the piping trench?

YES ☐ NO ☒

If yes,

1. How was free product handled? Describe:

N/A

2. What was the measured thickness of free product?

N/A

h. Were visible holes noted in the piping?

YES ☐ NO ☒

If yes, indicate the location(s) and provide a general description as to the size and number of holes:

DOUBLE-WALL FRAGGLASS PRODUCT LINES (4" SEND / RETURN LINES)

ADEM UST CLOSURE SITE ASSESSMENT FORM

i. Describe the soil type and thickness of all soil layers encountered in the piping trench:

SEE SECTION VIEWS (FIGURE NO#3); ALSO, PAGE NO#9; PART 2.6
OF THIS REPORT

j. Was the piping trench backfilled? YES ☒ NO ☐

If yes, provide the date of backfilling:

AUGUST 29-30, 2000

DO NOT BACKFILL WITH MATERIAL THAT HAS OR POTENTIALLY HAS A TPH OF GREATER THAN 100 PPM!

5. PRODUCT PIPING CLOSURE WITHOUT REMOVAL (CLOSED IN-PLACE):

N/A

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.

b. Attach plan and sectional views of the site and include the following:

CLOSED

By

REMOVAL



1. Location of the piping including depth,
2. Location of piping with respect to tank(s), if applicable.
3. Soil boring locations and depth at which soil samples were taken,
4. Boring logs.

c. Attach groundwater sampling data, if required based on depth to groundwater.
Refer to Closure Site Assessment Guidance for further details regarding requirements for groundwater sampling.

d. Was the piping purged of product prior to closure? YES ☐ NO ☐
If yes, was product properly disposed of? ☐ ☐

e. Was the piping capped? YES ☐ NO ☐

f. Is the groundwater more than 5 feet below the bottom of the excavation? YES ☐ NO ☐

Provide the depth from the ground surface to the groundwater table.

Feet: _____

Refer to Closure Site Assessment Guidance (page 11) for further details regarding requirements for determining groundwater elevation.

g. Was there a notable odor found in the bore holes? YES ☐ NO ☐

If yes,

(1) The odor strength was (mild) (strong) (other)
describe: _____

(2) The odor indicates what type of product:
(gasoline) (diesel) (waste oil) (kerosene) (other)
describe: _____

ADEM UST CLOSURE SITE ASSESSMENT FORM

h. Was free product found in the bore holes? YES ☐ NO ☐

If yes,

1. How was free product handled? Describe: _____

2. What was the measured thickness of free product? _____

N/A

CLOSED

By

i. Describe the soil type and thickness of all soil layers encountered in the bore holes and provide boring logs:

REMOVAL



j. Were the bore holes properly sealed with bentonite/soil? YES ☐ NO ☐
If yes, provide the date: _____

6. GROUNDWATER SAMPLING (If required by attached closure guidelines):

a. Indicate the following on the plan and section views required by Section 2.b., 3.b, 4.b, or 5.b. above:

NOT

REQUIRED



1. The location and depth of the 1 up-gradient and 3 down-gradient borings or monitoring wells. (Monitoring wells in lieu of borings are not required, but may be desirable in certain situations.)

2. The most probable direction of groundwater flow. State basis for determining direction:

b. Was a monitoring well used? YES ☐ NO ☐

If yes, attach a schematic drawing of the well(s) and all boring logs.

ADEM UST CLOSURE SITE ASSESSMENT FORM

c. SUMMARY OF GROUNDWATER SAMPLING RESULTS:

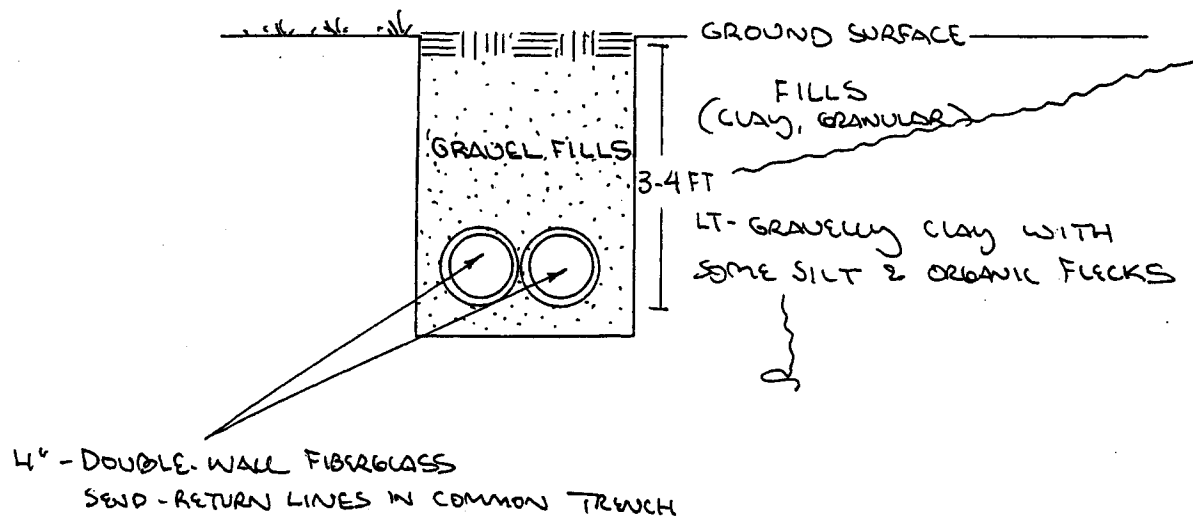
Date of Sampling: NOT REQUIRED

Boring or MW #:							
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b)fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

Note: Attach additional tables as needed based on number of groundwater samples or variations in sampling dates.

- d. Attach the original chain of custody record (copies are not acceptable) and the original laboratory data sheet (copies are not acceptable) for each sample.

GENERALIZED PIPING TRENCH
X-SECTION :



7. SUMMARY OF SOIL ANALYTICAL DATA

a. Provide the analytical data obtained from the site in the following tables:

TANK PIT SAMPLES:

Date of Sampling: 8-29/30-00

Sample #:	2278	2278	2278	2278	2278	2278	2278
	W1	W2	W3	W4	W5	W6	W7
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPH OPTION:							
TPH (YES)	<10	<10	<10	<10	<10	<10	<10
Lead							
COC OPTION:							
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b)fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

Note: Attach additional tables as needed based on number of soil samples or variations in sampling dates.

"W" INDICATES SOIL TEST FROM LOWER 1/3 OF UST EXCAVATION;

"B" INDICATES SOIL TEST FROM BASE OF PIT.

7. SUMMARY OF SOIL ANALYTICAL DATA

a. Provide the analytical data obtained from the site in the following tables:

TANK PIT SAMPLES:

Date of Sampling: 8-29/30-00

Sample #:	2278	2278	2278				
	W8	B1	B2				
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPH OPTION:							
TPH (YES)	<10	<10	<10				
Lead							
COC OPTION:							
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b)fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

Note: Attach additional tables as needed based on number of soil samples or variations in sampling dates.

"W" INDICATES SOIL TEST FROM LOWER 1/3 OF UST EXCAVATION;

"B" INDICATES SOIL TEST FROM BASE OF PIT.

ADEM UST CLOSURE SITE ASSESSMENT FORM

PIPING & DISPENSER SAMPLES:

Date of Sampling: 8-30-00

Sample #:	2278-	2278-	2278-	2278-			
	PI1	PI2	PI3	PI4			
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPH OPTION:							
TPH (YES)	<10	<10	<10	<10			
Lead							
COC OPTION:							
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b)fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

Note: Attach additional tables as needed based on number of soil samples or variations in sampling dates.

ATTACHED

- b. Attach the original chain of custody record (copies are not acceptable) and the original laboratory data sheet (copies are not acceptable) for each sample.

8. EXCAVATED SOIL

ALL EXCAVATED SOIL REQUIRES ANALYSIS PRIOR TO DISPOSAL. TANK CLOSURE SAMPLES FROM THE EXCAVATION MAY NOT BE REPRESENTATIVE OF THE LEVEL OF CONTAMINATION IN THE EXCAVATED SOIL.

For safety and other considerations, it is recommended that open pits and piping trenches should be backfilled as soon as possible with clean backfill. Soils which have TPH levels greater than 100 ppm or soils for which the level of contamination has not been determined shall not be returned to the excavation pit(s) or piping trenches.

a. If tank was closed by removal, provide an estimate of the volume of soil removed: (SEE PAGE NO #16) 212 cubic yds

b. Provide a summary of analytical results for the excavated soil:

Date of Sampling: 8-30-00

Sample #	TPH Results mg/kg	Lead Results (If applicable) mg/kg
2278-SP1	<10	
" SP2	<10	
" SP3	<10	
" SP4	<10	
" SP5	<10	
" SP6	<10	
" SP7	<10	
" SP8	<10	
" SP9	<10	
" SP10	<10	

Note: Attach additional tables as needed based on number of soil sample or variations in sampling dates.

- c. Attach the original chain of custody record (copies are not acceptable) and the original laboratory data sheet (copies are not acceptable) for each sample. ATTACHED
- d. Attach the "Total Potential VOC Emissions Calculations" for soil removed.

N/A

ADEM UST CLOSURE SITE ASSESSMENT FORM

e. Indicate current method and location of soil management and/or treatment prior to final disposal:

NOT REQUIRED

f. Check the method of soil disposal used or to be used:

- ☒ Return to the excavation pit only when TPH is less than or equal to 100 ppm and depth of groundwater is greater than 5 feet from the base of the pit.
- ☐ Spread in a thin layer (6" or less) on site only when TPH is less than or equal to 100 ppm
- ☐ Disposal in a landfill (See attached "Guidelines for the Disposal of Non-Hazardous Petroleum Contaminated Wastes").
- ☐ Incineration.
- ☐ Thermal volatilization.
- ☐ Recycling facility
- ☐ Other _____

g. If soil was disposed of prior to the submittal of this form, indicate the final destination below and attach copies of invoices, receipts, and "certificate of burn" (if soil was incinerated):

N/A

✓ 9. TANK CLEANING

a. The tank(s) were cleaned in accordance with American Petroleum Institute (API) Bulletin 2015 "Cleaning Petroleum Storage Tanks"?

YES



NO



If no, describe how tank(s) were cleaned:

b. Provide an estimate of the volume of sludge removed from the tank: RECEIPT ATTACHED 0 Gallons

c. Indicate the final destination of the sludge and attach invoices or receipts:

RECEIPT ATTACHED FOR BOTH SLUDGE / TANK DISPOSAL

ADEM UST CLOSURE SITE ASSESSMENT FORM

10. ATTACHMENTS

Attach the following to the closure form in the following order as applicable to the type of closure site assessment performed. Check each box to indicate that a particular map or information is attached to the closure site assessment form. The section of the closure site assessment form that indicates the required attachment is shown.

<input checked="" type="checkbox"/>	Topographic Map showing location of site (Section 2.a., 3.a., 4.a., & 5.a.)
<input checked="" type="checkbox"/>	Area map showing general location of the site. Include land use on-site and within 500' of site. (Section 1)
<input type="checkbox"/>	Include locations of domestic and public water supply wells, and surface water intakes (Section 1)
<input checked="" type="checkbox"/>	Plan and sectional views of the site including the following: (Section 2.b., 3.b., 4.b., & 5.b.)
<input checked="" type="checkbox"/>	Location of the closed tanks and piping including depth. Include any remaining tanks or piping at site. Include tank identification numbers.
<input checked="" type="checkbox"/>	Excavation dimensions of the tank system
<input checked="" type="checkbox"/>	Locations of soil samples taken for piping and tank which includes the analytical results.
<input type="checkbox"/>	Location of areas of visible contamination
<input type="checkbox"/>	Location of any stockpiled excavated soil
<input type="checkbox"/>	Location of soil borings for an in-place closure
<input type="checkbox"/>	The location and depth of the one up-gradient and 3 down-gradient borings or monitoring wells (Section 6.a.)
<input type="checkbox"/>	Map illustrating the most probable direction of groundwater flow (Section 6.a.)
<input type="checkbox"/>	Schematic diagrams of the monitoring wells installed (Section 6.b.)
<input type="checkbox"/>	Boring logs of soil borings (Section 3.b., 5.b. & 6.b.)
<input type="checkbox"/>	Site Classification Checklist
<input checked="" type="checkbox"/>	Invoices and/or receipts for sludge disposal (Section 9.c.)
<input type="checkbox"/>	Invoices, manifests and certificates of burn or disposal for soil disposal (Section 8.f.)

<input checked="" type="checkbox"/>	Attach the <u>original chain of custody record</u> (copies are not acceptable) for each sample which includes at least the following: (Sections 6.d., 7.b., & 8.c.)
<input checked="" type="checkbox"/>	Sample identification number,
<input checked="" type="checkbox"/>	Date and time sample was taken,
<input checked="" type="checkbox"/>	Name and title of person collecting sample (see certification requirement on page 15 of this form)
<input checked="" type="checkbox"/>	Type of sample (soil or water),
<input checked="" type="checkbox"/>	Type of sample container,
<input checked="" type="checkbox"/>	Method of preservation,
<input checked="" type="checkbox"/>	Date and time sample was relinquished,
<input checked="" type="checkbox"/>	Person relinquishing sample,
<input checked="" type="checkbox"/>	Date and time sample was received by lab,
<input checked="" type="checkbox"/>	Person receiving sample at lab.

<input checked="" type="checkbox"/>	Attach the <u>original laboratory data sheet</u> (copies are not acceptable) which includes at least the following: (Sections 6.d., 7.b., & 8.c.)
<input checked="" type="checkbox"/>	A sample identification number which can be cross referenced with the soil sample locations indicated on the plan and sectional views required by Section 2.b., 3.b., 4.b., or 5.b. above
<input checked="" type="checkbox"/>	The sample analytical results with appropriate units,
<input checked="" type="checkbox"/>	The method used to analyze each sample,
<input checked="" type="checkbox"/>	The date and time the sample was analyzed,
<input checked="" type="checkbox"/>	The person analyzing the sample.

ADEM UST CLOSURE SITE ASSESSMENT FORM

11. SIGNATURES

This form should be completed, signed, and returned, along with any other pertinent information, to the following address:

The Alabama Department of Environmental Management
Groundwater Branch
Post Office Box 301463
Montgomery, AL 36130-1463
(334) 270-5655

INCOMPLETE FORMS WILL BE RETURNED FOR CORRECTION.

Name of person taking soil and/or groundwater samples:

GREG A KARSTENS

Company:

KARST ENVIRONMENTAL

Telephone Number:

(205) 979-4320

I certify under penalty of law that I have obtained representative soil and/or groundwater samples using accepted sampling procedures.

Signature:

Greg A Karstens

Date:

9/13/00

Either an Alabama Licensed Professional Geologist or an Alabama Registered Professional Engineer must sign this form:

I certify under penalty of law that I have performed this closure site assessment in accordance with accepted soil and groundwater investigation practices; I am either an Alabama Licensed Professional Geologist or an Alabama Registered Professional Engineer; I am experienced in soil and groundwater investigations; and the information I have submitted, to the best of my knowledge and belief, is true, accurate, and complete.

Signature of Alabama Licensed Professional Geologist:

Greg A Karstens

Date:

9/13/00

Signature of Alabama Registered Professional Engineer:

Licensed P.G. or
Registered P.E. Number:

Not 875



I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

X Signature of Tank Owner:

Date:

ADEM UST CLOSURE SITE ASSESSMENT FORM

FOR ADEM USE ONLY:

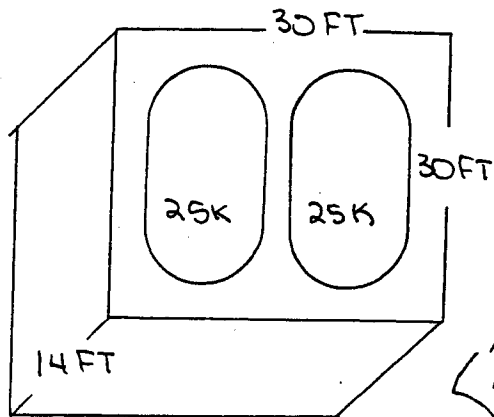
Reviewed By: _____ Date: _____

COMMENTS:

FORM 1133
9/15/97

Attachments: UST Closure Guidelines

UST EXCAVATION
DIMENSIONS:



TOTAL VOLUME OF
UST EXCAVATION: 12,600 FT³

VOLUME OF USTs: - 6,880 FT³

VOLUME OF SOIL
EXCAVATED: 5,720 FT³

ADEM FORM 1133
09/21/97

OR: 212 CUBIC YARDS

ADJACENT LAND USE
DIAGRAM (NOT TO SCALE):



LABORATORY DATA SHEET

KARST ENVIRONMENTAL

628 Valley Street
Birmingham, Alabama 35226

Laboratory

Invoice Number: K00-08-30

CLIENT: ALLEN EXCAVATING COMPANY
P O Drawer 456
Talladega, Alabama 35160

Report Date: 9/13/00

PROJECT NAME: U S ARMY-BUILDING 2278
Boiler House No#2
Ft. McClellan, Alabama

Sample location: UST & Piping Closure
Sampler: Greg A. Karstens, P.G.

Date collected: 8/29-30/00
Date analyzed: 8/30/00

TOTAL PETROLEUM HYDROCARBONS, (TPH)

LAB ID NO#	FIELD ID NO#	TPH mg/kg
11793	2278-W1	<10
11794	2278-W2	<10
11795	2278-W3	<10
11796	2278-W4	<10
11797	2278-W5	<10
11798	2278-W6	<10
11799	2278-W7	<10
11800	2278-W8	<10
11801	2278-B1	<10
11802	2278-B2	<10
11803	2278-PI1	<10
11804	2278-PI2	<10
11805	2278-PI3	<10
11806	2278-PI4	<10

LAB ANALYST: Greg Karstens
TEST METHOD: TPH, 5520 IR

Respectfully submitted



Greg A. Karstens, geologist
Karst Environmental



LABORATORY DATA SHEET

KARST ENVIRONMENTAL

628 Valley Street
Birmingham, Alabama 35226

Laboratory

Invoice Number: K00-08-30

CLIENT: ALLEN EXCAVATING COMPANY
P O Drawer 456
Talladega, Alabama 35160

Report Date: 9/13/00

PROJECT NAME: U S ARMY-BUILDING 2278
Boiler House No#2
Ft. McClellan, Alabama

Sample location: UST & Piping Closure
Sampler: Greg A. Karstens, P.G.

Date collected: 8/29-30/00
Date analyzed: 8/30/00

TOTAL PETROLEUM HYDROCARBONS, (TPH)

LAB ID NO#	FIELD ID NO#	TPH mg/kg
11807	2278-SP1	<10
11808	2278-SP2	<10
11809	2278-SP3	<10
11810	2278-SP4	<10
11811	2278-SP5	<10
11812	2278-SP6	<10
11813	2278-SP7	<10
11814	2278-SP8	<10
11815	2278-SP9	<10
11816	2278-SP10	<10

LAB ANALYST: Greg Karstens
TEST METHOD: TPH, 5520 IR

Respectfully submitted



Greg A. Karstens, geologist
Karst Environmental





CHAIN OF CUSTODY

LAB INVOICE #

Environmental Testing Laboratory

CLIENT: <u>Allen Excavating Company</u>	Date Received:	Date Results Needed:
<u>PO Drawer 456</u>	Send Invoice to:	P.O.#:
<u>TAMMICA, ALABAMA</u>	Special Instructions:	
<u>35110</u>	<input type="checkbox"/> Phone Results to: _____ at _____	
Contact: <u>KEN ALLEN JR Phone: (206) 362-4261</u>	<input type="checkbox"/> FAX Results to: _____ at _____	

SAMPLE IDENTIFICATION							PARAMETERS									
PROJECT NAME: <u>US Army -- BLDG 2278 (BOLLY # 2)</u>																
PROJECT LOC: <u>FT. McLELLAN</u>																
PROJECT #: <u>K500-08-30</u>			P.O. #:													
AMPLER: <u>KARSTENS, P.G.</u>			SAMPLE DATE: <u>8/29/00</u>													
LAB I.D.	FIELD I.D.	MATRIX	DATE	TIME	#BTL	TPH										
	2278-W1 WALLS OF	Soil	8/29	1430	1	✓									YES	✓
	" W2 UST PIT		8/29	1434		✓										
	" W3		8/30	1000		✓										
	" W4		8/30	1004		✓										
	" W5			1008		✓										
	" W6			1012		✓										
	" W7			1016		✓										
	" W8			1020		✓										
	2278-B1 BASE OF PIT	Soil		1045		✓										
	" B2			1050		✓										
	2278-PI1 PIPING	Soil		1200		✓										
	" PI2			1210		✓										
	" PI3			1220		✓										
	" PI4			1230		✓										
	2278-SP1 SPILLS	GRAVEL	8/29	1310		✓										
	" SP2		8/29	1311		✓										
	" SP3		8/29	1312		✓										
	" SP4		8/29	1313		✓										

Comments:

ACQUIRED BY	DATE/TIME	RECEIVED BY
SIGNATURE: <u>Greg A. Karstens</u>	Date: <u>8/30/00</u>	SIGNATURE: <u>Greg A. Karstens</u>
NAME: <u>GREG A. KARSTENS</u>	Time(24hr) <u>1130</u>	PRINT NAME: <u>GREG A. KARSTENS</u>
ACQUIRED BY	DATE/TIME	RECEIVED BY
SIGNATURE:	Date:	SIGNATURE:
NAME:	Time(24hr)	PRINT NAME:

PRINT NAME:

SITE NAME:

**U S ARMY-BUILDING 1076
BOILER HOUSE NO#1
FT. McCLELLAN, ALABAMA**

LEGEND

UST Area(s)

○ Gasoline

⊙ Diesel

○ Kerosene

○ Used/New Oil

● Soil Sample
Location

N/A Water Sample

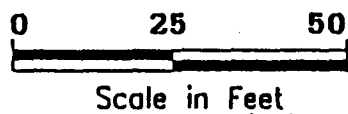
○ Soil Boring

○ Monitor Well

○ UST pit

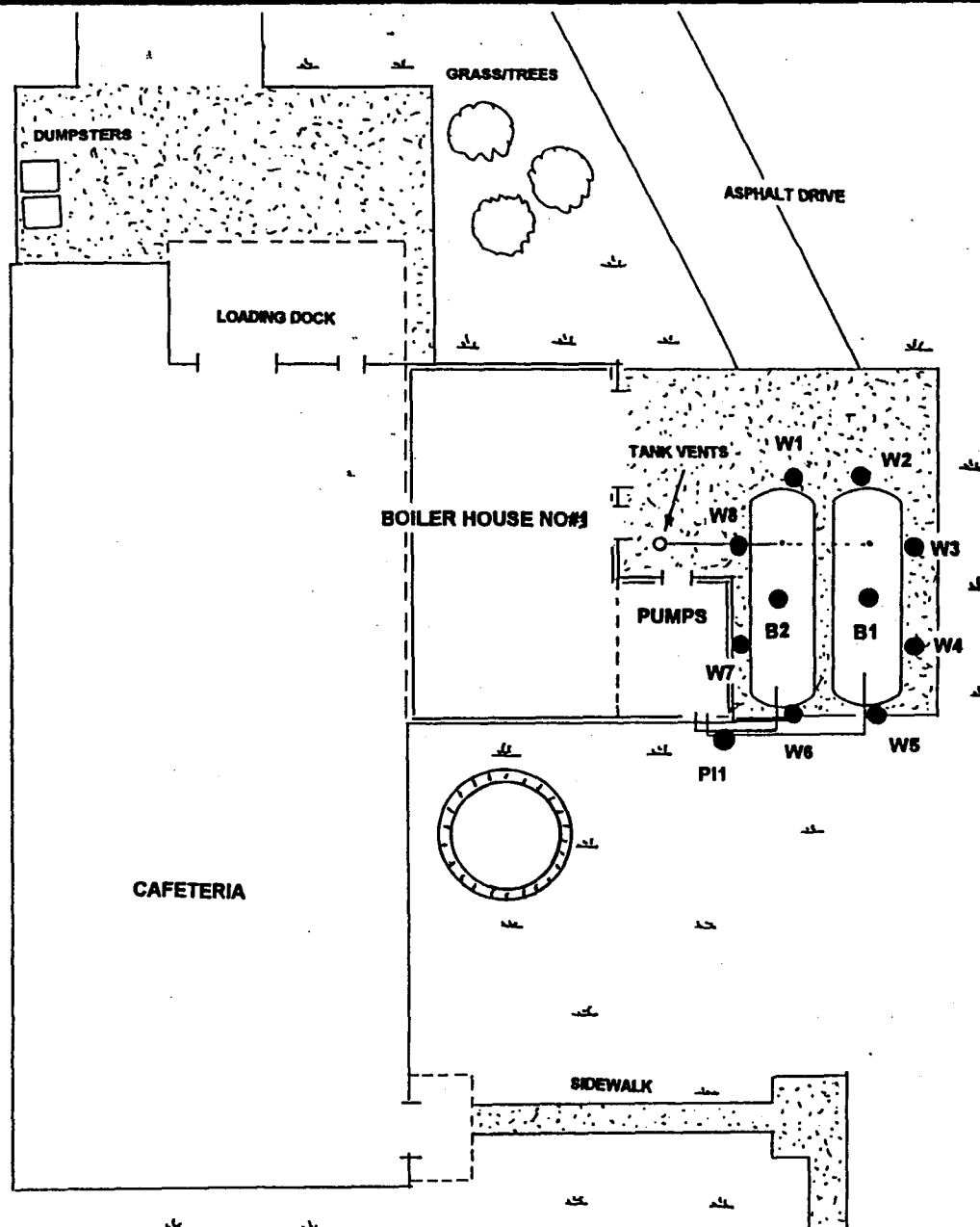
▨ Concrete Areas

▨ Grass Areas



CLOSED USTs:

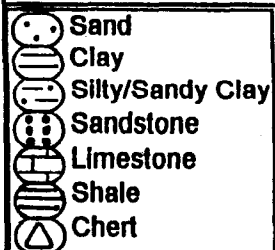
**2-15,000 GALLON (120"x26") #6 DIESEL
DOUBLE-WALL FIBERGLASS**



SITE NAME:

U S ARMY-BUILDING 1076
BOILER HOUSE NO#3
FT. McCLELLAN, ALABAMA

LEGEND



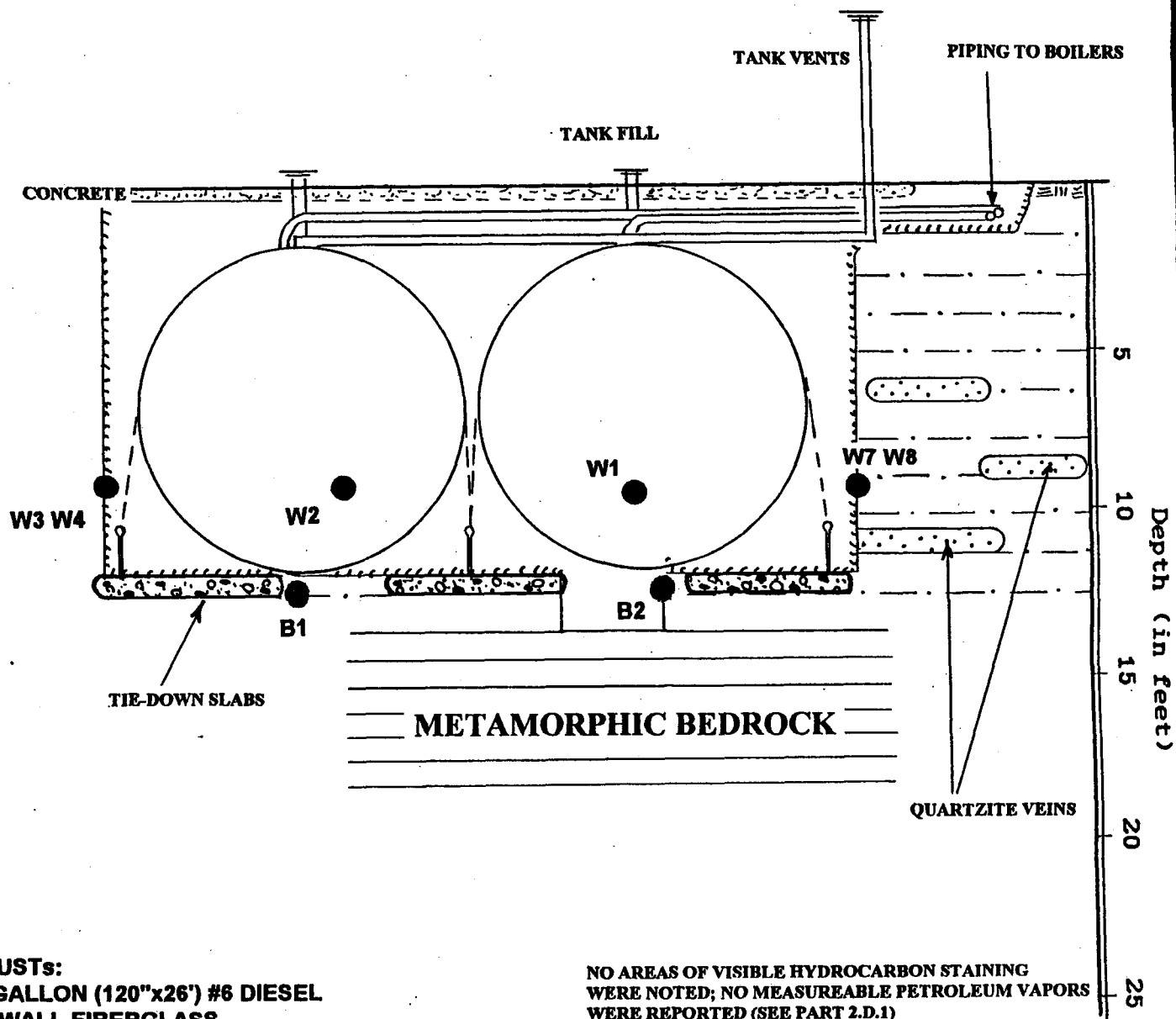
Limits of
Excavation

Groundwater
Observed

○ Yes
● No

● Soil Test
Area

GROUNDWATER WAS NOT OBSERVED
TO 13 FEET; HARD BEDROCK



CLOSED USTs:
2-15,000 GALLON (120"x26') #6 DIESEL
DOUBLE-WALL FIBERGLASS

NO AREAS OF VISIBLE HYDROCARBON STAINING
WERE NOTED; NO MEASUREABLE PETROLEUM VAPORS
WERE REPORTED (SEE PART 2.D.1)

FROM : I 20 TRUCKSTOP

FAX NO. : 205 763 2880

Sep. 18 2000 08:46AM P2

205-744-4300

**R & H
WASTE OIL, INC.**

P.O. BOX 281

SYLACAUGA, ALABAMA 35150-0281

(256) 245-3205

CUSTOMER'S ORDER NO.		PHONE		DATE	
NAME Allen Excavating, Inc					
ADDRESS Job Site - Anniston Army Depot Anniston, Ala.					
SOLD BY	CASH	C.O.D.	CHARGE	ON ACCT	MOSE RET'D
QTY.	DESCRIPTION			PRICE	AMOUNT
	Total Tanks Pumped				
	(6)				
*	Boiler Plant #2 - Tanks Pumped = 2				
-	Waste Water 4,000 gal.				
-	Fuel Oil 400 gal				
*	Boiler Plant #3 - Tanks Pumped = 2				
-	Fuel oil 300 gal				
*	Boiler Plant #4 - Tanks Pumped = 2				
-	Waste Water 3,000 gal.				
(7000)	Total Gal. Waste Water			1.504 gal.	
(700)	Total Gal. Fuel Oil			1.504 gal.	
				\$3,500	
	(Net Thirty Days)			TAX	
RECEIVED BY				TOTAL	\$3,500.00

All claims and returned goods MUST
be accompanied by this bill.

Thank You

3351

CERTIFICATE OF PROPER DISPOSAL



SOUTHERN TANK SALVAGE

A SUBSIDIARY OF

RAYCO INC.

385 Gunn Road

MONTGOMERY, ALABAMA 36117

TENNESSEE

(205) 272-5524

Date 9-12-2000 19__

Equipment Description PETROLEUM STORAGE TANKS No. 4 Size 2-15,000 2-25,000 FIBERGLASS

Transferred to RAYCO INC Transferred from ALLEN OIL CO (FT MCLELLAN, ANNISTON, AL)

How Shipped RAYCO'S TRUCK Freight Charges \$3400.00

Remarks RAYCO INC HEREBY CERTIFIES THAT THE TANKS HAVE BEEN PROPERLY DISPOSED OF IN ACCORDANCE

WITH API 1604 AND ADEMS GUIDELINES. THE TANKS CONTAINED NO SLUDGE. THE TANKS HAVE BEEN

CUT UP INTO SMALL PIECES AND DELIVERED TO MONTGOMERY CITY LANDFILL.

THE FOREGOING IS TRUE TO THE BEST OF MY KNOWLEDGE.

RAY THIBEAULT PRESIDENT RAYCO INC

Received by DON MIMS D.M. Transferred by KEN ALLEN

Date 9-12-2000 Date 9-12-2000